



GUIDELINE 20 — GUIDELINES FOR CLOSURE AND POSTCLOSURE CARE COST ESTIMATES FOR PUBLICLY AND PRIVATELY OWNED LANDFILLS UNDER CHAPTER 33-20-14 NDAC

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I. Rules for Preparing Closure Cost Estimates:

- A. Cost estimates based directly on closure plan activities; does not include costs of corrective action.
- B. Estimate must equal the cost of hiring a third party to close the largest open area requiring final cover during the life of the facility.

- 1. If facility is expanded over time, estimate must be increased; and
- 2. Estimate includes fully loaded costs.

Question: What is the regulatory intent of using closure/post-closure cost estimates based on a "Third Party" Performing the work?

Answer: If the owner/operator cannot complete closure as planned, the state will hire the contractors (i.e., third party contractors) to perform the closure work!

- 3. Third-party equipment and labor costs; and
- 4. Parent or subsidiary not considered third party.
- C. Salvage value disallowed for sale of equipment or wastes.
- D. Initial cost estimate based on current costs.
 - 1. Updates required for:
 - (a) Annual inflation;
 - (b) Changes in plans that increase or decrease costs;
 - (c) Increased facility capacity or additional cells; and
 - (d) Changes in the partial closure schedule.
- E. Closure activities that should be included in the cost estimate:
 - 1. Earthwork, labor, equipment and materials to construct closure cap and cover, and revegetation of site (erosion control, fertilizer, seeding, etc.);
 - 2. Project management, quality assurance/quality control, independent engineers' certification, and related support services (i.e. ,report preparation, etc.);
 - 3. Survey plat; and
 - 4. Closure certification.
- F. Cost estimates must include adequate detail and necessary figures and computations so they can be verified.

II. Rules for Preparing Post-Closure Care Cost Estimates:

- A. Cost estimate based on activities required by the post-closure care plan.

- B. Estimate is calculated by multiplying the current annual estimate for each cell by the number of years of post-closure care required for that cell.
- C. Estimate based on third-party costs.
- D. Initial cost estimate based on current costs.
- E. Updates required for:
 - 1. Annual inflation;
 - 2. Changes in plans that increase costs; and
 - 3. Increased facility capacity or additional cells.
- F. Post-closure activities that should be included in the cost estimate:
 - 1. Monitoring (ground water, surface water and gas);
 - 2. Sampling and analytical costs;
 - 3. Leachate management;
 - 4. Routine maintenance and inspection (including costs for well replacement, repair of final cover, etc.);
 - 5. Project management, quality assurance/quality control, independent engineer's certification, and related support services (i.e., report preparation, etc.);
 - 6. Filing post-closure notices; and
 - 7. Post-closure certification.
- G. Cost estimates must include adequate detail and necessary figures and computations so they can be verified.

III. RULES FOR UPDATING COST ESTIMATES FOR INFLATION

- A. Recalculate costs using current dollars; or
- B. Update costs using an inflation factor.

Step 1: Obtain the most recent Annual Implicit Price Deflator and Annual Deflator from previous year from Survey of Current Business or Economic Indicators.

Step 2: Calculate Inflation Factor; divide the most recent Deflator by the Deflator of the previous year.

$$\text{Ex. } \frac{\text{Most recent deflator}}{\text{Previous year's deflator}} = \frac{114.1}{111.2} = 1.03$$

Step 3: Adjust the cost estimate for inflation: multiply the most recent cost estimate by the inflation factor.

Ex. Previous year's cost estimate	\$100,000
Inflation factor	x 1.03
Updated cost estimate	\$103,000

New cost estimate is basis for level of financial assurance required.